

# Northeast Interceptor Improvements

City of Wilmington, NC



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and Associates, Inc.



# Presentation Outline

- Description of the Northeast Interceptor System (NEI)
- Objectives
- KHA Project Approach
- Schedule
- Progress To Date
- Questions ?



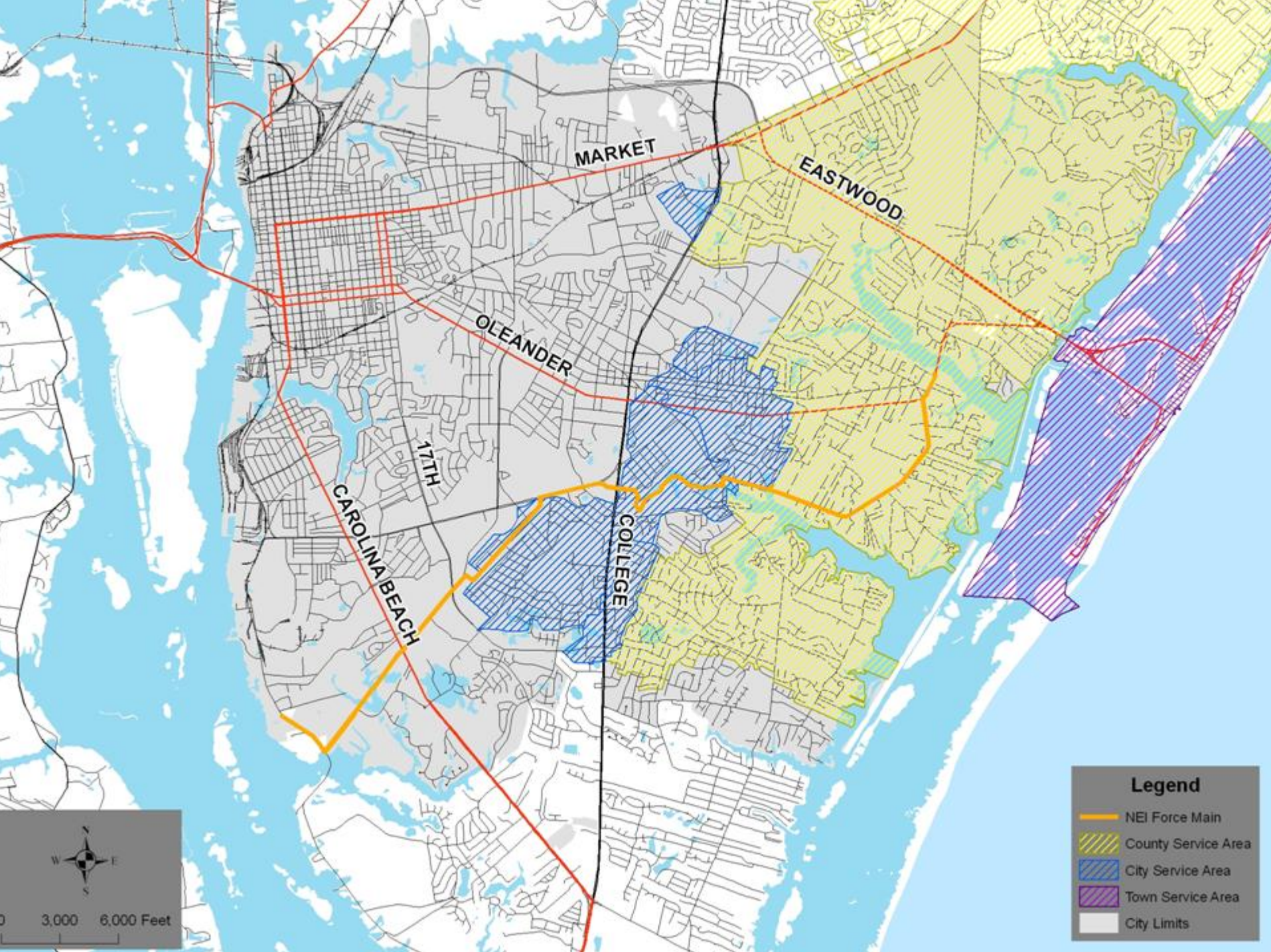


# NEI Components

- City Pump Stations 34 and 35
- Largest and third largest pump stations
- 16,500 LF 20" force main
- 32,500 LF 24" force main







MARKET

EASTWOOD

OLEANDER

17TH

CAROLINA BEACH

COLLEGE

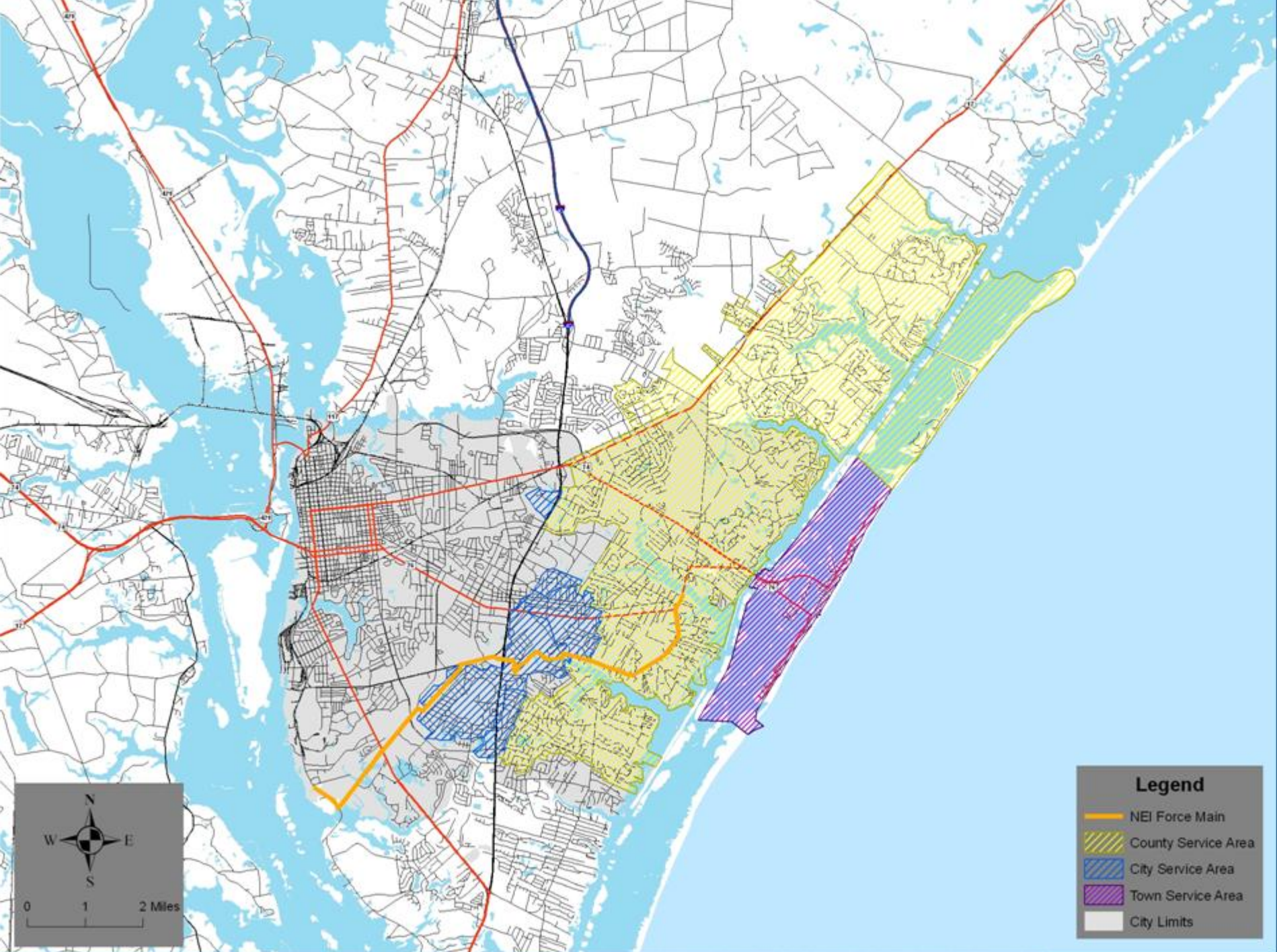
### Legend

- NEI Force Main
- County Service Area
- City Service Area
- Town Service Area
- City Limits



0 3,000 6,000 Feet







# NEI History

- Designed by Henry Von Oesen and Associates in 1981.
- Construction was completed by T.A. Loving Co. and Hall Contracting in 1983 for New Hanover County.
- Turned over to the City and placed in operation September 1983.





# Objectives

1. Evaluate the capacity, condition, and reliability.
2. Propose improvements that will provide:
  1. Capacity for future demands
  2. Operational flexibility
  3. A high level of reliability





# KHA Project Approach

1. Pipeline Condition Assessment
2. Operational Evaluation
3. Capacity Analysis
4. Reliability Assessment





# Deficiency Identification and Repair Program (DIRP)

1. Identify potential problem areas
2. Perform testing, inspection, and classification
3. Develop of Contract Documents
4. Bid
5. Monitor construction of urgent repairs





# Pipe & Component Classifications

- In imminent danger of failure
- In urgent need of repair
- To be rehabilitated or replaced
- Acceptable for continued use





# System Operational Evaluation

- Current Odor and Corrosion Control Program
- Odor and Corrosion Control Alternatives
- Easement Management Plan
- Air Release Valve (ARV) O & M





# Capacity Analysis

- Evaluate and validate previous populations projections performed in 2001
- Project future wastewater flows
- Compare projected flows to pump station and pipeline capacities





# Reliability Assessment

- DIRP field testing
- Operation and maintenance evaluation
- Risk tolerance workshops
- Recommendations for improved system reliability





# Preliminary Engineering Report

- Development of Alternatives and Recommendations
- Presentation of Findings

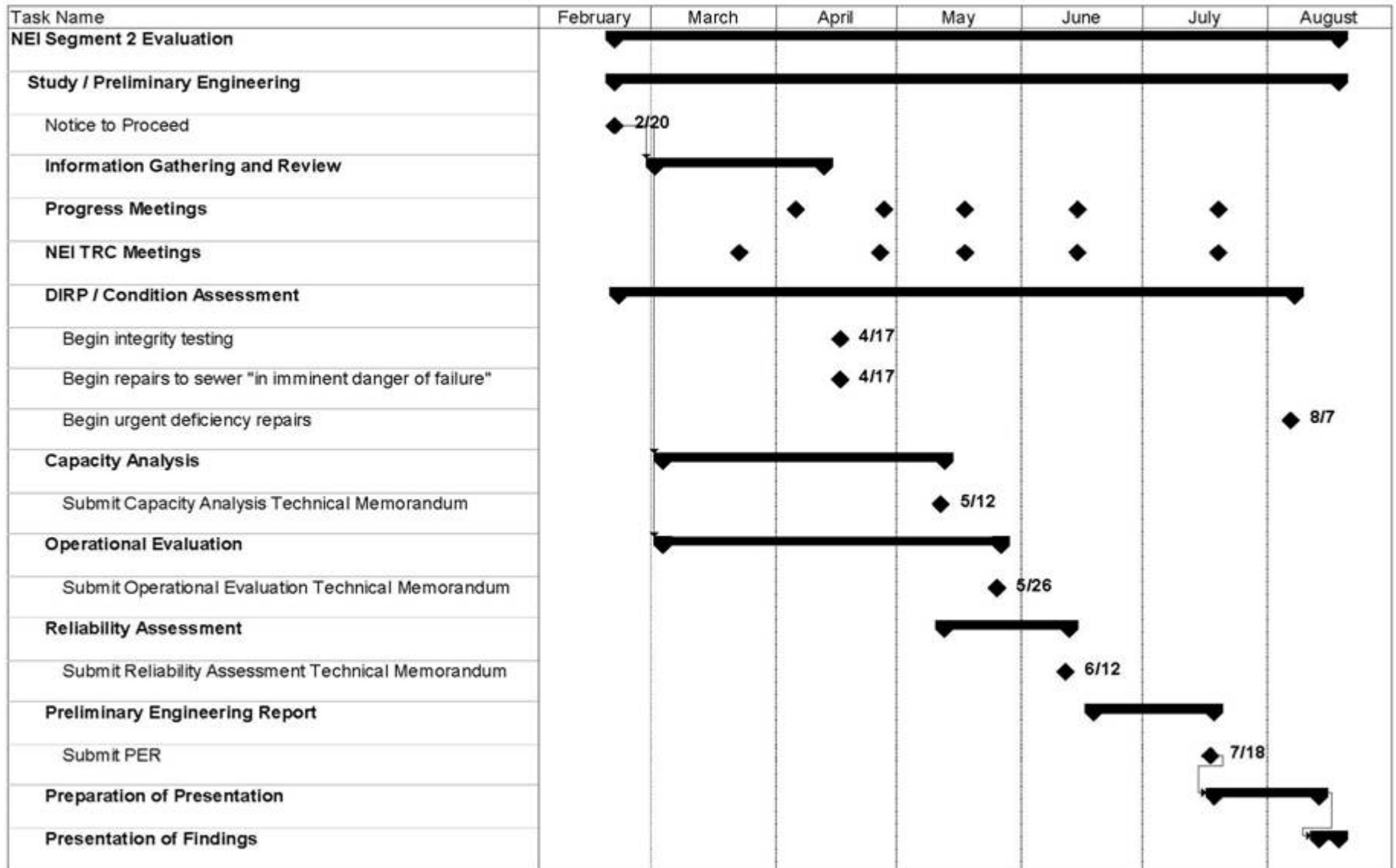






## City of Wilmington Northeast Interceptor Improvements Project Schedule

April 18, 2006





# Progress to Date

- Completed data collection and review
- Completed computer modeling
- Identified potential problem areas and begun testing
- Capacity Analysis - 50% complete
- Operational Evaluation – 50% complete





Questions ?

